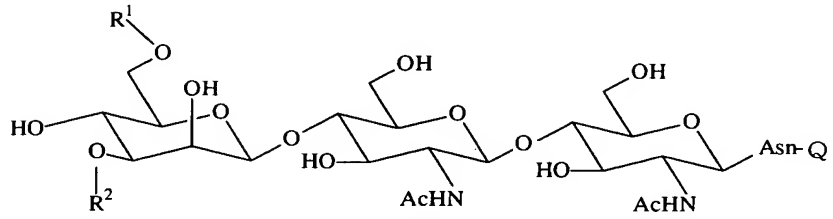
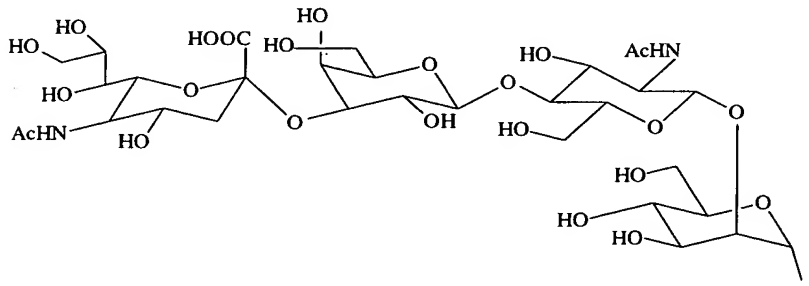
CLAIMS

1. An asparagine-linked oligosaccharide of the formula (1) given below having undeca- to tri-saccharides

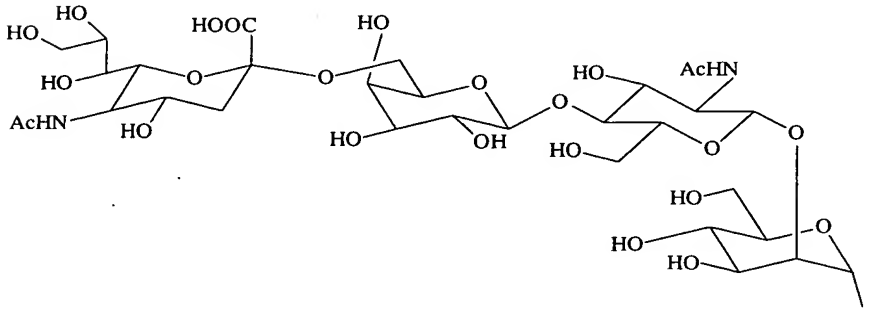


(1)

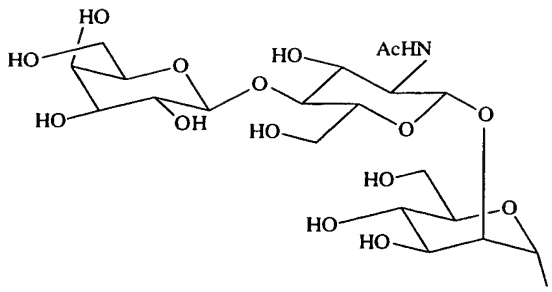
wherein R^1 and R^2 are each a hydrogen atom or a group of the formulae (2) to (6) and may be the same or different, and Q is a biotin group or FITC group.



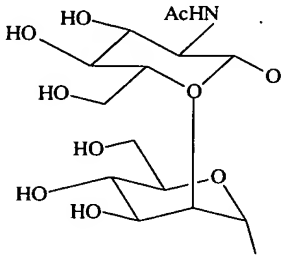
(2)



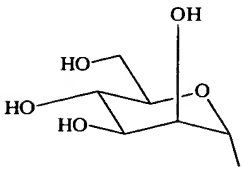
(3)



(4)



(5)



(6)

2. An asparagine-linked (α2,3) or (α2,6) oligosaccharide derivative having undeca- to hepta-saccharides and represented by the formula (1) wherein one of R^1 and R^2 is always a group of the formula (2) or (3).

3. An asparagine-linked (α2,3) (α2,6) oligosaccharide derivative having undecasaccharide and represented by the formula (1) wherein R^1 is a group of the formula (2), and R^2 is a group of the formula (3).

4. An asparagine-linked (α2,3) (α2,6) oligosaccharide derivative having undecasaccharide and represented by the formula (1) wherein R^1 is a group of the formula (3), and R^2 is a group of the formula (2).

5. An asparagine-linked oligosaccharide derivative

containing at least one fucose in N-acetylglucosamine on the nonreducing terminal side of an asparagine-linked oligosaccharide wherein the amino group of asparagine is modified with a biotin group or FITC group.

6. An asparagine-linked oligosaccharide derivative containing fucose and according to claim 5 wherein the asparagine-linked oligosaccharide having a biotin group or FITC group modifying the amino group of asparagine is an asparagine-linked oligosaccharide derivative of the formula (1) having undeca- to tri-saccharides.

7. An asparagine-linked oligosaccharide derivative containing fucose and according to claim 5 wherein the asparagine-linked oligosaccharide having a biotin group or FITC group modifying the amino group of asparagine is an asparagine-linked (α 2,3) (α2,6) oligosaccharide derivative according to claim 3 and having undecasaccharide.

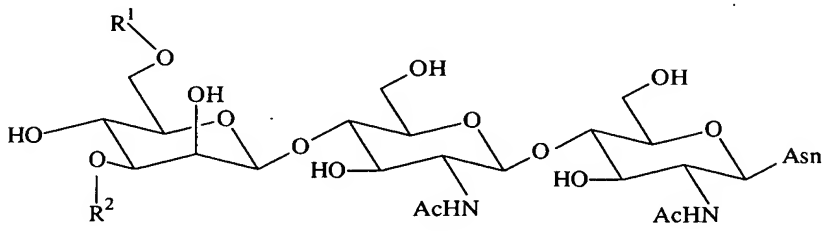
8. An asparagine-linked oligosaccharide derivative containing fucose and according to claim 5 wherein the asparagine-linked oligosaccharide having a biotin group or FITC group modifying the amino group of asparagine is an asparagine-linked (α 2,3) (α2,6) oligosaccharide derivative according to claim 4 and having undecasaccharide.

9. An asparagine-linked oligosaccharide derivative containing fucose and according to claim 5 wherein the asparagine-linked oligosaccharide having a biotin group or FITC group modifying the amino group of asparagine is an asparagine-linked α 2,3 oligosaccharide derivative having undeca- to hexa-saccharides and represented by the formula (1) wherein R^1 and R^2 are each a

hydrogen atom, a group of the formula (2) or a group of the formulae (4) to (6), and one of R^1 and R^2 is always a group of the formula (2) or (4).

10. An asparagine-linked oligosaccharide derivative containing fucose and according to claim 5 wherein the asparagine-linked oligosaccharide having a biotin group or FITC group modifying the amino group of asparagine is an asparagine-linked α 2,6 oligosaccharide derivative having undeca- to hexa-saccharides and represented by the formula (1) wherein R^1 and R^2 are each a hydrogen atom, a group of the formula (3) or a group of the formulae (4) to (6), and one of R^1 and R^2 is always a group of the formula (3) or (4).

11. A process for preparing a biotinated asparagine-linked oligosaccharide characterized in that an asparagine-linked oligosaccharide of the formula (7) having undeca- to tri-saccharides is biotinated



(7)

wherein R^1 and R^2 are as defined above.

12. A process for preparing a FITC-bonded asparagine-linked oligosaccharide characterized in that an asparagine-linked oligosaccharide of the formula (7) having undeca- to tri-saccharides is fluorescein isothiocyanated (FITC-bonded).

13. A microplate having immobilized thereto a biotinated asparagine-linked oligosaccharide according to claims 1 to 10.

14. An affinity column having immobilized thereto a

biotinated asparagine-linked oligosaccharide according to claims 1 to 10.